

indication of the root sequence in use by the neighbor APs that the STA can receive and detect, as detailed above in various non-limiting examples.

**[0103]** The first AP1 22 may comprise processing means such as at least one data processor (DP) 22A, storing means such as at least one computer-readable memory (MEM) 22B storing at least one computer program (PROG) 22C or other set of executable instructions. The AP22 may also comprise communicating means such as a transmitter TX 22D and a receiver RX 22E for bidirectional wireless communications with the STA 20, for example via one or more antennas 22F. The AP 22 may store at block 22G the algorithm or function or selection logic for including in the group polls that it sends an indication of its own root sequence used for at least those STAs in the group being polled, if not all STAs that are attached to this first AP1, as set for by non-limiting examples above.

**[0104]** The second AP2 has similar DP, MEM storing one or more PROGs, TX, RX and antennas as does the first AP1. And also similarly the second AP2 also has a PROG or logic for including in its group poll an indication of the root sequence it assigned to those STAs attached to the second AP2 and in the group being polled.

**[0105]** At least one of the PROGs 22C/22G in the first AP1 22, and PROGs 20C/20G in the STA 20, is assumed to include a set of program instructions that, when executed by the associated DP 22A/20A, may enable the device to operate in accordance with the exemplary embodiments of this invention, as detailed above. In these regards the exemplary embodiments of this invention may be implemented at least in part by computer software stored on the MEM 20B, 22B which is executable by the DP 20A of the STA 20 and/or by the DP 22A of the first AP1 22, or by hardware, or by a combination of tangibly stored software and hardware (and tangibly stored firmware). Electronic devices implementing these aspects of the invention need not be the entire devices as depicted at FIG. 8 but may be one or more components of same such as the above described tangibly stored software, hardware, firmware and DP, or a system on a chip SOC or an application specific integrated circuit ASIC.

**[0106]** In general, the various embodiments of the STA 20 can include, but are not limited to digital devices having wireless communication capabilities such as radio devices with sensors operating in a machine-to-machine type environment; or personal portable radio devices such as but not limited to cellular telephones, navigation devices, laptop/palmtop/tablet computers, digital cameras and music devices, and Internet appliances. In this regard even in the machine-to-machine type environment the STA is still within the more general term of user device.

**[0107]** Various embodiments of the computer readable MEMs 20B, 22B include any data storage technology type which is suitable to the local technical environment, including but not limited to semiconductor based memory devices, magnetic memory devices and systems, optical memory devices and systems, fixed memory, removable memory, disc memory, flash memory, DRAM, SRAM, EEPROM and the like. Various embodiments of the DPs 20A, 22A include but are not limited to general purpose computers, special purpose computers, microprocessors, digital signal processors (DSPs) and multi-core processors.

**[0108]** Various modifications and adaptations to the foregoing exemplary embodiments of this invention may become apparent to those skilled in the relevant arts in view of the

foregoing description. While the exemplary embodiments have been described above in the context of the WLAN and IEEE 802.11ah system, as noted above the exemplary embodiments of this invention may be used with various other types of wireless communication systems and access technologies such as for example cognitive radio systems or cellular systems as presently in use or as adapted over time in the future to handle machine to machine type communications.

**[0109]** Further, some of the various features of the above non-limiting embodiments may be used to advantage without the corresponding use of other described features. Additionally, the nomenclature used in the above description for certain messages, and/or fields and/or informational elements of such messages, are not limiting but rather are provided to give the reader a clearer appreciation of the teachings herein. The foregoing description should therefore be considered as merely illustrative of the principles, teachings and exemplary embodiments of this invention, and not in limitation thereof.

We claim:

1. A method comprising:

utilizing a code sequence to distinguish at least an acknowledgement, sent from a first user device to a first access node of a first network, from at least other acknowledgements that may be sent by other user devices in parallel or sequentially;

from signaling received at the first user device, determining a root sequence in use by a second access node of a second network; and thereafter

compiling an uplink message for informing the first access node of the root sequence in use by the second access node.

2. The method according to claim 1, in which:

the first access node and the second access node are each access points of the respective first and second networks which are wireless local area networks;

the first user device is a station attached to the first access point; and

the acknowledgement is sent in response to the first user device receiving from the first access point a group poll.

3. The method according to claim 1, in which:

the signaling received at the first user device comprises signaling received from the second access node which indicates a root sequence currently in use by the second access node.

4. The method according to claim 3, in which the signaling is received and the uplink message is compiled in response to receiving from the first access node a request for the uplink message.

5. The method according to claim 1, further comprising:

transmitting the uplink message to the first access node; receiving from the first access node signaling that indicates a new root sequence; and

changing the code sequence in dependence on the new root sequence.

6. An apparatus comprising:

at least one processor; and

at least one memory including computer program code,

in which the at least one memory and the computer program code are configured, with the at least one processor and in response to execution of the computer program code, to cause the apparatus to perform at least:

utilizing a code sequence to distinguish at least an acknowledgement, sent from a first user device to a first access node of a first network, from at least other